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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,352	07/29/2003	Masahiko Asano	056208.52612US	4499
7590	07/05/2005			EXAMINER ZARROLI, MICHAEL C
Crowell & Moring LLP The Evenson, McKeown, Edwards & Lenahan Intellectual Property Law Gr. 1001 Pennsylvania Avenue, N.W. Washington, DC 20004-2595			ART UNIT 2839	PAPER NUMBER

DATE MAILED: 07/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/628,352	ASANO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Michael C. Zarroli	2839	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 07 June 2005.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 1-12 and 15 is/are allowed.
- 6) Claim(s) 13 and 14 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)          |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | Paper No(s)/Mail Date. <u>6/28/05</u>                                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____.                                   |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments and amendments, filed 6/7/05, with respect to claims 1-12 and 15 have been fully considered and are persuasive. **One part of the applicant's argument the examiner does not agree with and that is found at the bottom of page 9.** The applicant is attempting to import limitations from the specification. A bonding wire and a flex cable are two very different components. Unless the applicant explicitly recites that the bonding wire is part of a flex cable the examiner will consider the bonding wire as being only a bonding wire and not part of a flex cable.

2. The indicated allowability of claims 13 and 14 is withdrawn in view of the newly discovered references. Rejections based on the newly cited reference(s) follow.

### ***Claim Rejections - 35 USC § 103***

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any

inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Aoike et al in view of Zifcak et al.

Aoike discloses a device figures 1 & 2 for controlling (title) a vehicle (intended use) comprising; a housing 2; a printed circuit board 1 fixed to the inside of said housing fig. 1 and has a control circuit made up with modules which perform preset functions col. 3 lines 56-63; plugs 3 for transferring signals between the inside and the outside of said housing fig. 1; and plug pins 41 in each plug electrically connected to said printed circuit board fig. 2 via bonding wires 6 inside said housing.

Aoike does not disclose that at least one of said modules has a silicone-made supporting board.

Zifcak discloses a silicone support board 13 and col. 3 lines 25-26. At the time the invention was made it would have been obvious to one of ordinary skill in the art to modify Aoike to include a silicone support board for at least one of the modules as taught by Zifcak. The motivation for this is well known in the art and would be to provide shock absorption in a rough application.

6. Claim 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Aoike et al in view of Sasaki.

Aoike discloses a device figures 1 & 2 for controlling (title) a vehicle (intended use) comprising; a housing 2, a printed circuit 1 board fixed to the inside of said housing fig. 1 and has a control circuit made up with modules which perform preset functions col. 3 lines 56-63; plugs 3 for transferring signals between the inside and the outside of said housing fig. 1; and plug pins 41 in each plug electrically connected to said printed circuit fig. 2 board via bonding wires 6 inside said housing.

Aoike does not disclose that at least one of said modules has a resin-made supporting board.

Sasaki discloses a supporting board 41 made of resin (col. 4 lines 66-68) in a housing for supporting modules.

At the time the invention was made it would have been obvious to one of ordinary skill in the art to modify Aoike to include a resin support board for at least one of the modules as taught by Sasaki. The motivation for this is well known in the art and would be to provide shock absorption in a rough application.

*Allowable Subject Matter*

7. Claims 1-12 and 15 are allowed over the prior art of record.
8. The following is a statement of reasons for the indication of allowable subject matter:

The combination of claims 1 and 8 specifically the multi layer circuit board with three layers described.

The combination of claim 5 specifically the grounding pin and its location.

Reasons for claim 7 were given previously.

Reasons for claims 9 and 10 were given previously.

The combination of claim 11 specifically the multi layer circuit board with vias.

Reasons for claim 15 were given previously.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Zarroli whose telephone number is 571-272-2101. The examiner can normally be reached on 7:30 to 3:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, T.C. Patel can be reached on (571) 272-2800 ext 39. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael C. Zarroli  
Primary Examiner  
Art Unit 2839

MCZ  
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